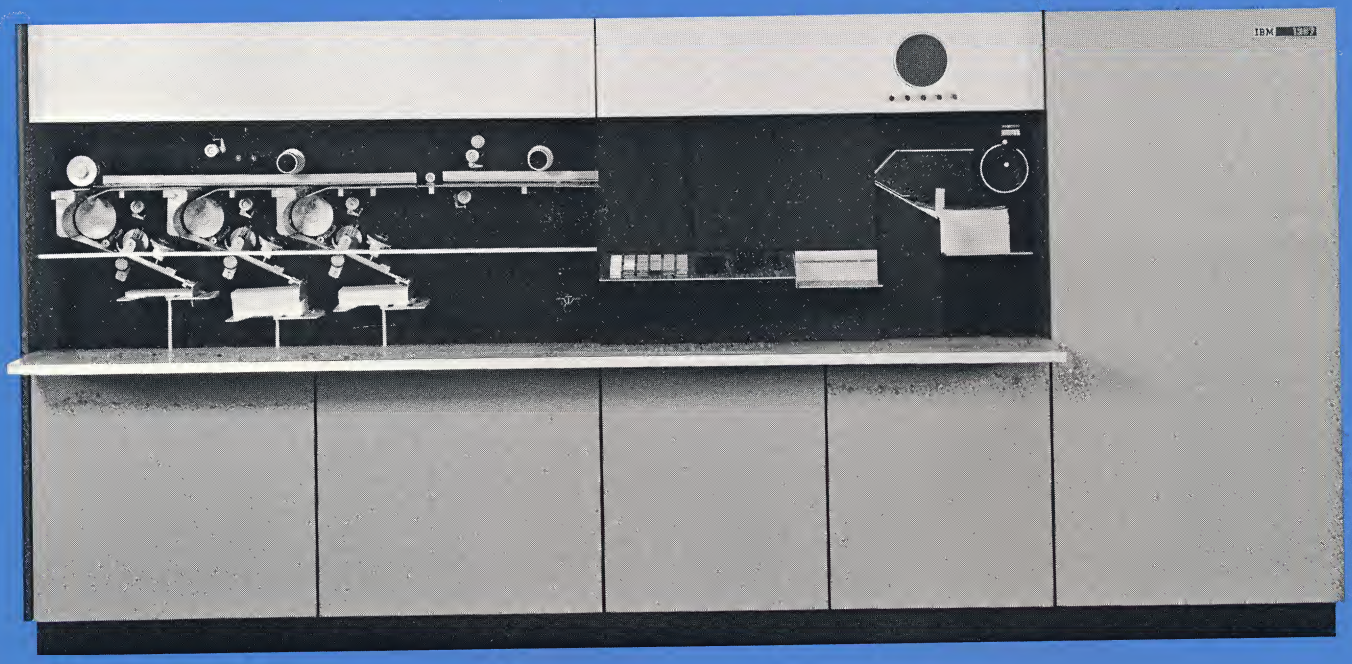
IBM 1287 Optical Reader

hand-printed numeric data for computers


IBM

New capability for computing efficiency

The IBM 1287 Optical Reader is a multifunction optical recognition device that reads hand-printed numbers, machine-printed numbers, imprinted numbers and marks representing data—and transfers this information directly into an IBM computer system for processing.

Designed specifically for IBM System/360, the 1287 reads numeric information from punched card bill stubs, saleschecks, meter sheets, telephone toll tickets and continuous journal tapes—with remarkable ease, speed and reliability.

It virtually eliminates the need for card punching, verifying, or taping computer input. On-line to the computer, the IBM 1287 Optical Reader can provide substantial reductions in your current data preparation costs and will significantly improve overall system efficiency.

Breakthrough in optical reading . . . numeric hand-printing recognition

In the vanguard of input devices, the new 1287 can optically read hand-printed numeric information, such as product codes, prices, department numbers and parts numbers, and enter them directly into the computer system. Now, saleschecks, production tickets and other hand-printed documents can supply timely operational data to your computer as soon as they are read by the 1287. As a result, more usable data can be made available in less time for accounts receivable, inventory and production control, and similar procedures.

Numeric hand-printing recognition is a unique special feature of the 1287 that enables it to read digits 0 through 9.

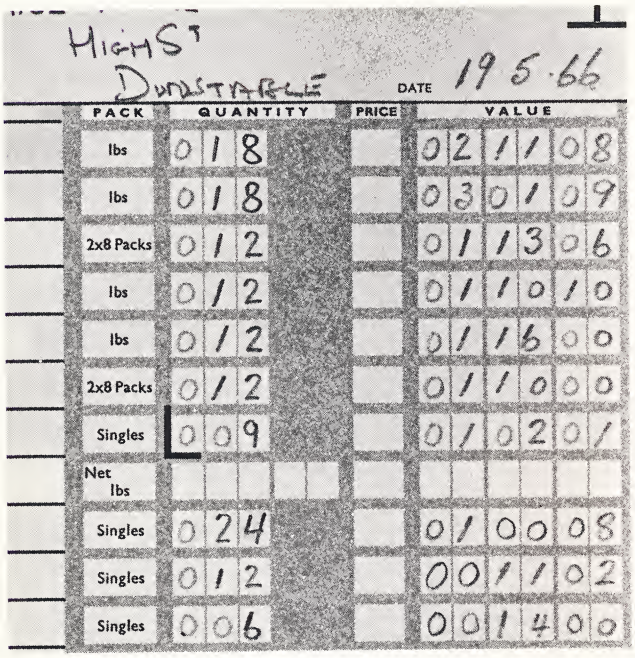
The accuracy and reliability of hand-printed numbers can be controlled by simple writing rules. The effectiveness of hand-printed numeric input has been proven in extensive field tests.

Wide-ranging reading abilities

The 1287 is designed for operating flexibility. Besides reading hand-printed numbers, it reads numbers printed in IBM 1428 font, ASCS output from IBM Selectric® typewriters, and several commercial optical type styles including NOF and 7B fonts. It reads pencil marks representing data, as well as imprinted numbers and numeric data printed in black, purple, red and green inks.

These abilities enable the 1287 to read pencil-printed documents, forms printed in different type fonts, and journal tapes printed in different optical type styles. With the 1287, you have greater freedom to choose data-originating machines and methods that suit your needs.

Cover: Display of hand-printed numbers as they are read by the IBM 1287.



Improved reading accuracy

The IBM 1287 Optical Reader combines an advanced high-speed, high-resolution scanning system and superior recognition logic to achieve comprehensive character recognition of great accuracy and reliability. Each number and mark is analyzed in detail. If the character is broken or unclear, the 1287 rescans it up to ten times in a fraction of a second. If the tenth attempt is unsuccessful, the 1287 rejects it. This technique provides a high degree of accuracy and results in a lowered reject rate.

High-speed reading

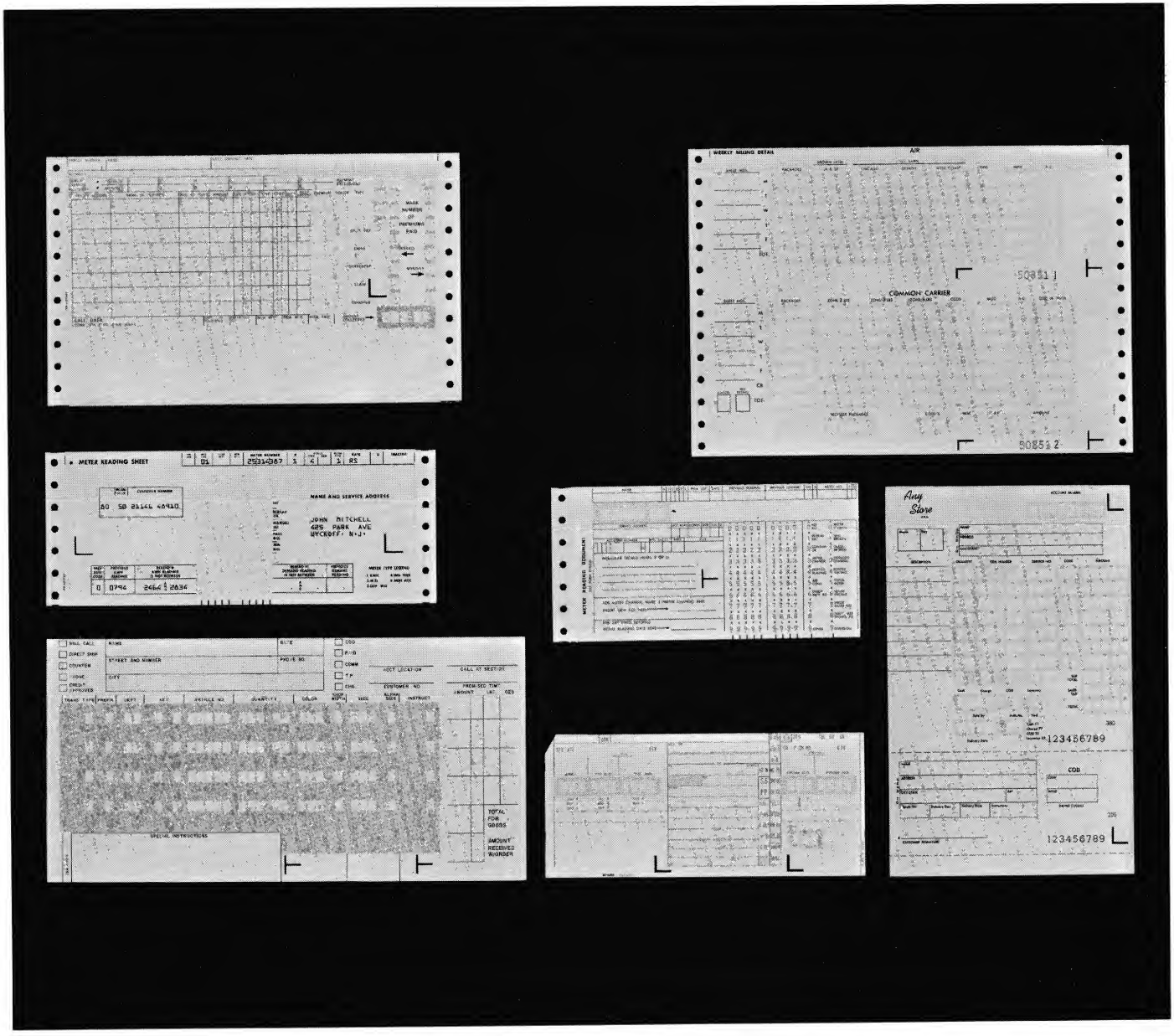
The 1287's rapid reading capabilities enable it to process more documents and journal tapes per minute and send more information per minute to the computer than manual systems can. In one minute, it can read thousands of lines of journal tape, hundreds of utility bill stubs—each containing a line of data, or up to 124 saleschecks—each with five lines of hand-printed and machine-printed numeric data. Reading at high speeds, the 1287 can absorb peak processing loads without impairing the computer's processing efficiency.

Comprehensive scanning

As a result of advanced design, the 1287 can, in a single pass, read any number of lines on a document within a 4″x 9″ area which can contain up to six lines per inch vertically and ten characters per inch horizontally. The 1287 reads data vertically and horizontally from almost anywhere on a document.

On-line error correction

When an unreadable number is displayed by the 1287, the operator can correct it on-line by using the 1287 keyboard to insert the correct number.


WEEKLY BILLING DETAIL
AIR
COMMON CARRIER
METER READING SHEET
JOHN MITCHELL
425 PARK AVE
WYCKOFF, N.J.
Any Store
123456789
COD
TOTAL FOR GOODS
AMOUNT RECEIVED W/ORDER

Format flexibility

Automatically guided by stored program instructions, the 1287 reads a wide variety of document formats. Programmers define these formats with instructions that automatically select, by location and sequence, the document fields to be read. These fields may consist of a single number or an entire line, and formats may differ from one application to the next, yet they can all be scanned in a single pass.

There's no problem in reading mixtures of machine-printed, imprinted and hand-printed fields from the same document, either. The characteristics of these fields are specified in programs. This use of program instructions saves reading time and increases overall system productivity.

Adaptable automatic transport

A versatile vacuum transport system speeds documents and journal tapes through the 1287, enabling it to accommodate a wide range of document sizes, from 2¼″x 3″ (the size of a punched card bill stub) to 5.9″x 9″. Three stacking pockets in the transport system are available for sorting out specific documents. For example, one could be used for forms with procedural errors, one could be used for forms with numeric hand-printing errors, and one could be used for acceptable forms.

Journal tapes can range in size from $1\frac{5}{16}$″ to 4½″ wide. It takes only about ten seconds to load one. The operator simply inserts the end of the tape into the feed throat and the automatic self-threading mechanism takes over.

IBM
SYSTEM 360

System/360 compatibility

The 1287 was developed specifically as a high-speed input device for System/360. It can be attached to Models 30, 40 and 50.

On-line and time-independent

Attached to the multiplexer channel of System/360, the 1287 is always on-line, enabling you to use the computer's multiprogramming capability to best advantage. For example, you can generate flash sales reports with daily sales data and complete your weekly payroll at the same time. The 1287 operates time-independently of the system. It can be programmed to permit extensive editing of a single document independent of the system's cycle time.

Editing

Raw numeric data is handled according to program instructions developed for your specific procedures or operations. These instructions save valuable processing time and increase the reliability of input and results.

Program support

The IBM 1287 can offer you far-reaching capabilities, because it will be supported by fully-tested working programs including: Disk Operating System/360, Tape Operating System/360, Basic Operating System/360, and Basic Programming Support.

The IBM 1287—improved operating effectiveness in a wide range of industries

As a powerful input device, the 1287 increases your ability to have accurate, timely information ready for processing. These examples of industry applications show how this new, multifunction optical reader can increase processing efficiency.

Retail

The 1287 can speed the processing of applications ranging from sales audit to merchandise management and accounts receivable. For example, it reads hand-printed and imprinted numeric data from saleschecks, numeric data from adding machine and cash register journal tapes, and computer-printed numeric data from management reports, enabling the computer to balance inventory to desired service levels, establish accounting controls and update customer credit records.

Telephone companies

Hand-printed toll tickets permit faster and more accurate toll recording at switchboards. These tickets and marked tickets (similar to existing mark sense tickets) can both be read by the 1287. It also helps realize significant savings in revenue accounting. For instance, the 1287 makes it possible to combine a customer's bill, toll statement and detachable payment stub in a single paper document.

Public utilities

The 1287's ability to read numeric hand-printing can speed applications in payroll, transportation, material and supply, and accounting functions. It can process cash stubs economically, because it can handle multiple lines of machine printing and variable hand-printed numeric data on each stub.

Other industries and applications

Manufacturing: Order entry, production control, cost distribution, quality control, payroll

Finance and insurance: Loan payment coupons, customer servicing, premium billing, debit applications, collections

Transportation: Passenger revenue accounting, payroll, general accounting

Chain and wholesale: Order entry, physical inventory, receiving, retail services, direct deliveries

Putting your data to work faster

The IBM 1287 is an important advance in speeding input to a computer. Have your IBM marketing representative show you exactly what the 1287 can do to broaden the scope and improve the efficiency of your data processing operation.

International Business Machines Corporation
Data Processing Division
112 East Post Road, White Plains, New York 10601
(USA only)

IBM World Trade Corporation
821 United Nations Plaza, New York, New York 10017
(International)

Printed in USA 520-1394-1